

profile not at all convex; the premaxillaries projecting well beyond the front of the snout. Mouth very large, oblique, the jaws subequal, or the lower slightly projecting; maxillary extending far beyond the eye to nearly opposite the middle of the cheek, its length being a little more than half head. Teeth in moderate bands, slender, the outer series moderately enlarged. Eyes large, placed close together, as long as snout, about $4\frac{1}{2}$ in head.

Body entirely scaleless. Fins all somewhat mutilated, so that the numbers of fin-rays are not readily ascertained, especially in the anal. Dorsal spines very slender and flexible; base of soft dorsal forming about two-fifths length of body; the fin well separated from the spinous dorsal. Caudal rather short, its tip apparently convex. Anal fin long. Pectorals and ventrals mutilated, apparently of moderate length.

Color light olivaceous; back, sides, and upper fins speckled with dark olive; caudal with 3 or 4 dark olive cross-bars; head with some dark markings; lower fins pale.

The type is a female specimen 2 inches in length, full of nearly ripe ova. It was obtained from the stomach of a specimen of *Hexagrammus asper*, captured by the writers in Saanich Arm, on the eastern shore of Vancouver's Island, in June, 1880. The specimen has been somewhat injured by the process of digestion, but all the distinctive characters can be readily made out. Its slender body and large mouth distinguish it at once from most species of the genus.

INDIANA UNIVERSITY, August 10.

**DESCRIPTIONS OF NEW SPECIES OF REPTILES AND AMPHIBIANS
IN THE UNITED STATES NATIONAL MUSEUM.**

By H. C. YARROW, M. D. (Univ. Penn.),
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***Ophibolus getulus niger*, subsp. nov.**

In a valuable and interesting collection of reptiles, from Wheatland, Indiana, made by Mr. Robert Ridgway in 1881 were three specimens of *Ophibolus* which differ so materially from the ordinary *Ophibolus getulus* that it seems necessary to assign them a position as a subspecies, and the above name is therefore proposed.

DESCRIPTION.—Color entirely black with the exception of the under part of the head; upper and lower labials marked like the typical *O. getulus*. Head-plates entirely black, not spotted, and in none of the specimens examined are light central spots on the head-scales to be seen. Verticals, occipitals, and superciliaries more elongated and narrower than in the normal type; frontals and prefrontals about the same. Abdominal scutellæ plumbeous white spotted, not yellow. A peculiarity of the type specimens from which this description is prepared is that the third, fourth, and fifth postabdominal scutellæ are entire, not

divided; but this last trait has been noticed in other species of the genus. In the specimen described, on the second and third row of scales are a few sparsely scattered white spots resembling those of *O. sayi*, but there is no approach to regularity, nor is there any indication of a pattern. No. 12149, ad., Wheatland, Ind.; 7 upper labials on both sides, 9 lower on one, 10 on the other; 12 rows of scales, 1 ante-orbital, 2 postorbitals; length 4 feet 6 inches.

A younger specimen 3 feet 4 inches long is similar in appearance to the older one, but there seems to be a tendency to a greater display of the white spots on the sides. Color of the back lustrous black; belly dull black, with milk-white maculations. Isolated and minutely punctulated spots on the back show a decided approach to a pattern of coloration as in *O. getulus*. In two specimens of *O. getulus*, Nos. 9109 and 8797, from Marietta, Ga., and Augusta, Ga., the cross-markings of white spots are almost obsolete, like those of the young specimens of *O. getulus niger*; but on the sides the white blotches are large and strongly defined, which is not the case in *O. getulus niger*. The heads, too, are yellow spotted. Mr. R. Ridgway and Mr. L. Turner inform me that the subspecies described is quite common in both Indiana and Illinois, and that it has doubtless replaced the normal *O. getulus*, which in those States has not been collected by either of these gentlemen.

Ophibolus getulus eiseni, subsp. nov.

A number of specimens of *Ophibolus getulus boylii* have been found in a collection of reptiles made by Mr. Gustav Eisen, at Fresno, Cal., and among them are three specimens differing so materially from the type that it is proposed to name them provisionally for their discoverer.

DESCRIPTION.—Plates of the head similar to those of *O. getulus boylii*: 1 ante-orbital, 3 postorbitals, 7 upper labials, 10 lower labials; 23 rows of scales on body; difference, so far as the head is concerned, being an increase in number of postorbitals and lower labials.

Color markedly different from the type of *O. getulus boylii*. The first white annulus, three scales wide, commences 11 scales posteriorly to the occipitals; there is then an interval of 5 scales to second white annulus, another interval of 5 scales to the third white annulus, which instead of passing down towards the abdomen, expands at the base, and joins an oval ring 8 scales wide transversely to the body, and 8 scales long posteriorly. Eight scales behind this ring a white line $1\frac{1}{2}$ scales wide commences, which extends the length of body to opposite the 207th abdominal scale, or about the 30th from the anus. This line is absolutely continuous, but breaks off into annuli at the place mentioned. There are then a triangular white blotch, 3 annuli, another blotch, and the dorsal line commences again and ends at tip of tail. At a distance of 4 scales below this dorsal line, on both sides, are indications of lines, and near the borders of the mentioned scales are broken and obsolete whitish blotches.

Color of head and upper part of body pitchy lustrous black; middle, lower third, and tail blackish brown. This subspecies placed side by side with *O. getulus boyli* presents a very different facies. The head and neck resemble *O. boyli* in markings and coloration, but the appearance of the body and tail is entirely different from any North American serpents with which we are familiar. It is hoped other specimens may come to hand and establish the validity of the subspecies.

Number.	Collector.	Date of collection.	Locality.
11787	G. Eisen.....	1879	Fresno, Cal.
11788	G. Eisen (type).....	1879	do.
11744	G. Eisen.....		do.

***Ophibolus getulus multicinctus*, subsp. nov.**

This name is proposed for a subspecies collected by Mr. Gustav Eisen, at Fresno, Cal.

DESCRIPTION.—Smaller in size than *O. getulus boyli*, to which the coloration gives it a similarity of appearance. Head smaller and more elongated than *O. getulus boyli*; neck compressed, scales in twenty-three rows, smooth and lanceolate. Rostral wider than broad, post-frontals very large; two nasals, nostril between; one loreal; anteorbitals one; postorbitals two; vertical elongated without angles on sides, resembling an inverted cone; occipitals longer than broad, having each a small scale at the angular basal end. Upper labials 7, lower labials 9. Eye above notch between third and fourth upper labials. Post-abdominal scutella entire, caudal all divided. There are 49 black bands from occipitals to end of tail, the 42d opposite the anus.

General color of body dirty white, the borders of the sides being brown. Upper part of head as far posteriorly as last third of occipitals, pitchy black. Behind this commences a white band extending and expanding on each side of the head, taking in the last two upper labials, passing completely around. Posterior to this are a black band six scales wide, and a reddish-brown band 4 scales wide. From the head, posteriorly, the black bands increase in width, being $5\frac{1}{2}$ scales wide on the middle of the body; the white bands are here narrower embracing 3 scales only. In many of the black bands there is a tendency at the bases to split up into reddish-white blotches, and one or two of them notably near the head are almost entirely divided by the running upwards of the blotches.

Number.	Collector.	Date of collection.	Locality.
11753	G. Eisen	1878	Fresno, Cal.

The National Museum has been very fortunate lately in receiving several collections containing a number of species which have long been

desired. Among these collections is one made by Mr. L. Belding, near La Paz and Cape Saint Lucas, Lower California, and this contains not only many desiderata, but several new species, now to be described.

Bufo beldingi, sp. nov.

DESCRIPTION.—Head broader than long, muzzle acuminate and projecting. Canthus rostralis indefinite. Superciliary ridges small. Vertical gutter broad and small. Eyes very small, almost concealed by heavy overhanging lids which are densely tuberculated. Tympanum very small, one-half the size of parotid, which is subcircular and tuberculated. Skin smooth except on flanks. Toes a little more than two-thirds webbed, shovel very small and light colored. Two carpal tubercles, external large, both oval; one small rounded tubercle. Color in old specimens, bluish gray, darker on sides, with orange-colored tubercles. Legs banded with same color as on sides. Belly yellowish white, with bluish spots near insertion of both arms. In young specimens the color of the back is yellowish gray, the sides being darker, the tubercles being bright orange. Resembles somewhat *Bufo microscaphus*, in general outline, but the coloration is very different. Named in honor of Mr. L. Belding, the collector of the specimen.

Number.	Collector.	Locality.	Date of collection.	Number of specimens.
12660 1267	L. Belding ..........do	La Paz, Cal ..........do	1882	6 (type). 4

Crotaphytus copeii, sp. nov.

DESCRIPTION.—Head broader and longer than *C. wislizeni*. Superciliary ridges well developed. Anterior border of auditory aperture with one, two, or three larger scales than the surrounding ones. Scales anterior to orbits, and posterior to nostrils, on upper surface of head, larger than elsewhere. Scales on gular fold larger than those anteriorly or posteriorly. Upper and lower labials fifteen each to angle near base of jaw. Infraorbital chain consists of four plates, the second very large. Femoral pores large and distinct. First phalanx of hind leg extended reaches angle of jaw. Color dark gray, maculated with dark brown circular spots, each having a lighter center. Anterior to the lower extremities the spots become rhomboid in shape, and on the tail are oval. The head is densely and minutely punctulated with black spots. Belly white. This species is to be compared with *C. wislizeni*, from which it differs in certain particulars, the coloration being entirely different from any of the known species of *Crotaphytus*.

Number.	Collector.	Date of collection.	Locality.
12663	L. Belding	1882	La Paz, Cal. (type).

Uta elegans, sp. nov.

DESCRIPTION.—Dorsal scales smaller than ventral, carinated. Supraorbitals five, with one or two very much smaller ones anteriorly. The rows of large submental scales terminate in two or three sharply-pointed ones at anterior order of auditory aperture. Femoral pores fifteen. A sharp ridge of three scales runs from anterior margin of orbit to nostril. Gular fold bordered with large scales. Color greenish blue, light spotted. Seven oblong transverse black blotches from nape of neck to thighs. Under part of head indigo blue, with bright yellow markings near the jaws. Between auditory aperture and posterior to the axilla, an irregular series of cadmium yellow spots; posterior to this an indigo-blue blotch bordered with yellow above. Abdomen light indigo blue; tail unspotted, but with indication of dark bands on upper surface. This species in life must be very brilliant in coloration, resembling somewhat *Uta schotti*.

Number.	Collector.	Locality.	Date of collection.	Number of specimens.
12666	L. Belding.....	La Paz, Cal.....	1882	11 (type).
12668	.....do.....	.....do.....		4

Sceloporus rufidorsum, sp. nov.

This beautiful and characteristic species was discovered at San Quentin Bay, California, by Mr. L. Belding, who has forwarded other specimens of it from La Paz and Cerros Island.

DESCRIPTION.—Scales of dorsal region strongly carinated, as large as those of *S. clarki zosteromus*, in twelve rows between insertion of upper extremities. Abdominal scales smaller than labials. Cephalic shields not carinated, but slightly tuberculated. Prefrontal broader than long. Superciliaries in three series, not in immediate contact with the superciliary series. Abdominal scales finely denticulate. Scale of base of tail larger than upon any other part of the body. Femoral pores fifteen. Color above, on dorsal ridge, light reddish brown, which in some specimens gradually fades towards the lateral region, and which in others is confined to three scales in width. Posterior to the upper border of the auditory orifice a light yellow line is seen, which extends seven scales backwards, and turns downwards at a right angle, continuing until the shoulder is reached; anterior to this, and in the angular space thus formed, is a patch of deep indigo blue. Sides of body and abdomen same color, many of the scales being spotted with malachite green. This color terminates abruptly at the line of femoral pores. Tail bluish brown above, bluish white beneath. This species is to be compared with *S. clarki zosteromus*, from which it differs principally in coloration.

Number.	Collector.	Locality.	Date of collection.	Number of specimens.
11981	L. Belding.....	San Quentin Bay, Cal.....	1882	Type.
12667	.....do.....	La Paz, Cal.....		5
11971	.....do.....	Cerros Island, Cal.....		2

Phrynosoma douglassi *pygmæa*, subsp. nov.

In 1878 Mr. H. W. Henshaw forwarded to the National Museum, from the vicinity of Des Chutes River, Oregon, a number of horned lizards, which, though adults, are smaller than any known species of *Phrynosoma*. In 1881 Capt. Chas. Bendire, U. S. A., forwarded from Fort Walla Walla, Wash, Ter., the same species. A number of specimens have been found in the National Museum collection of reptiles from Fort Steilacoom. While resembling *P. douglassi* in many particulars, still there are many dissimilar characters, and the name is proposed as given above. Head more elongated and less flat above than in *P. douglassi*, superciliary ridges more strongly marked. Occipital and temporal spines, considering size, more acute and longer.

Body almost circular when viewed from above, not so long as in *P. douglassi*; limbs small in proportion to size, hind limbs extended, almost reaching axilla. Inframaxillary series of scales eight in number, not nine as in *P. douglassi*, separated from lower labials by two rows of subcircular scales, in each of which a well-developed pore may be seen. Femoral pores very minute.

Color above dark gray, with a double series of six black blotches, posteriorly margined with light gray. Chin and upper portion of breast minutely punctulated with black. The largest specimen, number 10918, from Fort Walla Walla, is from tip of tail to end of nose $3\frac{1}{10}$ inches in length, $1\frac{1}{2}$ inches in width across belly.

Number.	Locality.	Collector.	Date of collection.	Number of specimens.
10918	Fort Walla Walla, Wash.....	Capt Chas. Bendire, U. S. A.	1878	5
11473	Des Chutes River, Oreg.....	H. W. Henshaw	1878	2
11945	Oregon	do .....	.....	3
9199	Fort Steilacoom	do .....	.....	3

UNITED STATES NATIONAL MUSEUM,
Washington, August 14, 1882.

CONTRIBUTION TO THE MIOCENE FLORA OF ALASKA.

By L. LESQUEREUX.

The Miocene flora of Alaska is partly known by a memoir of Heer, published in the second volume of his Arctic Flora. The memoir was prepared from specimens collected by M. Furuhielm, of Helsingfors, Finland, partly in the island of Kuin, in the vicinity of Sitka, partly at Cook's Inlet, near the peninsula of Aliaska. The plants described by Heer, representing 56 species, are of marked interest by their intimate relation with those of Atane, in Greenland, on one side, and with those of Carbon, in Wyoming and of the Bad Lands in Nevada, on the other. They compose a small group which supplies an intermediate point of